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MA-385-US

PROPOSED AMENDMENTS TO THE CLAIMS:

Draft

1. (Currently amended) An asymmetrical digital subscriber line (ADSL) system for transferring an analog audio signal of an analog communication equipment and high speed digital data of a high speed digital data equipment provided on the side of a subscriber, from and to a station, through one subscriber line, said system comprising:

an apparatus on the subscriber side in which an analog audio signal of the analog communication equipment is converted into a digital audio signal, said subscriber side apparatus comprising a line concentrator to concentrate the digital audio signal together with the high-speed digital data by time division, and supplied to the subscriber line after being modulated by a first ADSL modem, while after a signal received from the station through the subscriber line is demodulated by the first ADSL modem, the digital audio signal is converted into an analog audio signal and supplied to the analog communication equipment, and at the same time high-speed digital data is supplied to the high-speed digital data equipment; and

an apparatus on the station side in which a signal received from said apparatus on the subscriber side through the subscriber line is demodulated by a second ADSL modem, thereafter the digital audio signal is converted into an analog audio signal, which is supplied to an analog telephone network, and at the same time high-speed digital data is supplied to a high-speed digital data network, while an analog audio signal of the analog telephone network is converted into a digital audio signal, said station side apparatus comprising a line concentrator to concentrate the digital audio signal together with high-speed digital data of the high-speed digital data network by time division, and supplied to the subscriber line after being modulated by the second ADSL modem; modem; and

a subscriber line interconnected between said first ADSL modem in said apparatus on the subscriber side and said second ADSL modem in said apparatus on the station side,

wherein said apparatus on the subscriber side and said apparatus on the station side convert each digital audio signal as well as each high-speed digital data into asynchronous transfer mode (ATM) cells in each respective line concentrator and attach each destination address to the ATM cells.

Draft

7. (Currently amended) An asymmetrical digital subscriber line (ADSL) system for transferring an analog audio signal of an analog communication equipment and high speed digital data of a high speed digital data equipment provided in an apparatus on a subscriber side, from and to an apparatus on a station side, through one subscriber line, said system comprising:

said apparatus on the subscriber side ~~comprises:~~ comprising:

an analog-to-digital/digital-to-analog (AD/DA) converter for converting an analog audio signal of the analog communication equipment into a digital audio signal or converting a digital audio signal into an analog audio signal, to supply the analog audio signal to the analog communication equipment, and supplying the high-speed digital data to the high-speed digital data equipment;

a line concentrator for concentrating the digital audio signal and the high-speed digital data by time division; and

a first ADSL modem for modulating the digital audio signal and the high-speed

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15 digital data and supplying the modulated signal to the subscriber line, and demodulating a
16 modulated signal received from the station side through the subscriber line;
17 said apparatus on the station side ~~comprises:~~ comprising:
18 a second ADSL modem for demodulating the modulated signal received from
19 said apparatus on the subscriber side through the subscriber line and modulating a digital audio
20 signal and high-speed digital data to be supplied to the subscriber line; and
21 a line concentrator for supplying the digital audio signal modulated by said
22 second ADSL modem to an analog telephone network as well as supplying the high-speed
23 digital data to the high-speed digital data network, and concentrating the digital audio signal
24 from the analog telephone network and the high-speed digital data from the high-speed digital
25 data network by time division, then to send the digital audio signal together with the
26 high-speed digital data to said first ADSL modem; modem; and
27 a subscriber line interconnecting said first ADSL modem and said second ADSL
28 modem;
29 wherein said apparatus on the subscriber side and said apparatus on the station side
30 convert each digital audio signal and the high-speed digital data into asynchronous transfer
31 mode (ATM) cells in each respective line concentrator and attach a destination address to the
32 ATM cells.

Draft
1 15. (Currently amended) A method of transferring an analog audio signal over an
2 asymmetrical digital subscriber line (ADSL) containing high-speed digital data, said
3 method comprising:
4 providing a subscriber service via an apparatus on a subscriber side of the network
5 receiving as inputs an analog audio signal of an analog communication device and high-speed
6 digital data of a high-speed digital data device, said providing subscriber service comprising:
7 converting the analog audio signal into a digital audio signal;
8 converting each digital audio signal and each high-speed data into
9 asynchronous transfer mode (ATM) cells in a line concentrator;
10 attaching each destination address to each ATM cell;
11 concentrating said converted digital audio signals together with said converted
12 high-speed digital data into an ATM cell string signal using time division;
13 modulating said ATM cell string with a first ADSL modem; and
14 transmitting said modulated ATM cell string signal to the subscriber line; and
15 receiving the ATM signal from said subscriber side into an apparatus on the station
16 side, said receiving comprising:
17 demodulating said ATM signal with a second ADSL modem located in said
18 apparatus on the station side;
19 converting said concentrated digital audio signal into an analog audio signal;
20 transmitting said analog audio signal to an analog telephone network; and
21 transmitting said concentrated high-speed digital data to a high-speed digital
22 network;
23 wherein said first ADSL modem is interconnected to said second ADSL modem via a
24 subscriber line.

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